US Army Corps
of Engineers
Kansas City District

KANSAS CITY DISTRICT
CORPS OF ENGINEERS

Finding of No Significant Impact
Environmental Assessment
NEPA/404 CWA Review

STRUCTURAL MODIFICATIONS FOR EMERGENCY NAVIGATION CHANNEL REPAIR, MISSOURI RIVER MILES 160.8 TO 161.0, EUREKA BEND, COLE COUNTY, MISSOURI

August 2006

FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT
&
NEPA/404 CWA REVIEW

THE U.S. ARMY CORPS OF ENGINEERS, KANSAS CITY DISTRICT'S, STRUCTURAL MODIFICATIONS FOR EMERGENCY NAVIGATION CHANNEL REPAIR, MISSOURI RIVER MILES 160.8 TO 161.0, EUREKA BEND, COLE COUNTY, MISSOURI

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DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

Finding of No Significant Impact

U.S. Army Corps of Engineers, Kansas City District's, Structural Modifications for Emergency Navigation Channel Repair, Missouri River Miles 160.8 to 161.0, Eureka Bend, Cole County, Missouri

Project Summary

The U.S. Army Corps of Engineers (USACE) Kansas City District, completed **emergency** structure maintenance to restore commercial barge navigation to the Missouri River at miles 160.8 to 161.0 in order to maintain an unobstructed channel for safe navigation. The completed work occurred on or about July 29, 2006. The site is located between Columbia and Jefferson City, on Eureka Bend, adjacent to the Marion Bottoms Conservation Area, in Township 48 north, Range 16 west, Cole County, Missouri.
The Corps repaired the sill portion of dike 168.6 and constructed a new rootless stone dike at Missouri River miles 160.8 and 161.0 respectively within the waters of the Missouri River. The new dike was rootless, 235 feet long and consisted of approximately 4,500 tons of quarried limestone. The repaired sill portion of dike 168.6 was 110 feet long. Construction was done from a barge from the waters of the Missouri River. Newly quarried limestone rock was pushed off a barge by dozer and/or placed by dragline. No equipment worked within the substrate of the shallow waters of the Missouri River, within any wetland, or on dry land. The Corps determined that repair of existing dikes 168.5 and 168.6 would not sufficiently affect the major shoaling area. However, construction of the new rootless dike at mile 161.0 in conjunction with the repair of the sill on dike 168.6 would shift more water into the navigation channel thereby naturally scouring a deeper navigation channel and also allowing shallow water habitat and sandbar to replace the deeper water that presently exists below these structures.

Alternatives

Three alternatives were considered:
1. Repair of the sill portion of dike 168.6 and construction of a new rootless dike
2. Repair of existing structures, the sill portion of dike 168.6 and dike 168.5
3. No Federal Action

The “No Federal Action” alternative (3) has not been recommended because it would not meet the project purpose and need of allowing safe and unobstructed passage for commercial barge traffic on the Missouri river. The “No Federal Action” alternative would also allow for unsafe navigation conditions on the Missouri River to continue.

Alternative 2, Repair of existing structures, the sill portion of dike 168.6 and dike 168.5. Shallow water habitat was constructed at Dikes 168.5 and 168.6 in 2004 by excavating a notch into the dike of 168.6 near the high bank. Both dikes were also extended riverward 150 feet to compensate for the flow diverted through the notch. This alternative of repairing only existing structures would not affect the major part of the shoaling problem and would therefore result in an insufficient deepening of the navigation channel at the preferred location, especially at dike 168.5. In addition, it would also reduce some of the shallow water sandbar habitat and habitat diversity required by and developed for the endangered pallid sturgeon and other Missouri River aquatic species within this area. Therefore Alternative 2 was rejected.

Recommended Plan

Alternative 1, the recommended plan, is to repair the sill portion of dike 168.6 and also the construction of a new rootless dike, as described above and in the Environmental Assessment. Of the three alternatives being considered, this plan is recommended because it does provide self scouring and deepening of the navigation channel at the exact location of the shoaling, the shallow water sandbar habitat within the area of construction is enhanced, and therefore benefits the diversity of the aquatic habitat. Additionally, this alternative does not adversely affect the adjacent landowner (MDC), the construction related impacts are temporary and minor, and it meets the project purpose and need.

Summary of Environmental Impacts

On this project, a minor amount aquatic habitat will be disrupted during the construction phase of the project. The adverse effects associated with the project are short-term/minor and related to project construction. The long term effects of the construction however, will provide some additional diversity of shallow water and sandbar habitat for the pallid sturgeon and other fish and wildlife. The benefits of the additional sandbar habitat created upon project completion would offset the minor adverse affects to the aquatic habitat during construction.

The U.S. Army Corps of Engineers, Kansas City District’s structural modifications for the emergency navigation repair will result in adverse effects that are typically minor/short-term construction related and result in minor long term environmental benefit. As described above, the recommended plan is consistent with maintaining the navigation channel as well as protecting the sandbar and shallow water habitat of the Missouri River pallid sturgeon and other river species.

Mitigation Measures

The recommended plan will result in a minor amount of new clean quarried limestone rock being placed within the Missouri River at Eureka Bend, adjacent to Marion Bottoms Conservation Area. As described above in the Summary of Environmental Impacts section, the overall environmental benefits associated with this project outweigh the minor and temporary construction-related impacts of the project. Therefore, no mitigation measures are warranted or proposed.

Public Availability

A description of the project was circulated to the public and resource agencies through a Public Notice, No. 200602355, dated August 16, 2006, with a 15-day comment period ending on August 31, 2006. This notice contained a project description, along with information on the Corps' preliminary determination to prepare a Finding of No Significant Impact for the project and a draft Section 404(b)(1) Evaluation. The notice was mailed to individuals/agencies/businesses listed on the Missouri Distribution Listing. The Public Notice was available for public/agency review and comment on the Kansas City District Regulatory Branch website at:
http://www.nwk.usace.army.mil/regulatory/public_notices.htm
The FONSI, EA and NEPA/404 CWA Review documents could be found on the Kansas City District Corps of Engineers website at:
http://www.nwk.usace.army.mil//RiverCharts/RiverCharts.htm

Conclusion

After evaluating the anticipated environmental, economic, and social effects of the completed activity, it is my determination that the emergency repair and construction of river structures within the Missouri River at miles 160.8 to 161.0, Eureka Bend, adjacent to Marion Bottoms Conservation Area, does not constitute a major Federal action that would significantly affect the quality of the human environment; therefore, preparation of an Environmental Impact Statement will not be required.

Date: _____ _____

Colonel Michael Rossi
Colonel, Corps of Engineers
District Commander

ENVIRONMENTAL ASSESSMENT
& NEPA/404 CWA REVIEW

THE U.S. ARMY CORPS OF ENGINEERS, KANSAS CITY DISTRICT'S, STRUCTURAL MODIFICATIONS FOR EMERGENCY NAVIGATION CHANNEL REPAIR, MISSOURI RIVER MILES 160.8 TO 161.0, EUREKA BEND, COLE COUNTY, MISSOURI

Section 1: INTRODUCTION

This Environmental Assessment provides information that was developed during the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act public interest review for the U.S. Army Corps of Engineers, Kansas City District's (NWK), Operation and Maintenance of the Missouri River Bank Stabilization and Navigation Project (BSNP).

The U.S. Army Corps of Engineers (USACE) Kansas City District completed **emergency** structure maintenance to restore commercial barge navigation to the Missouri River at miles 160.8 to 161.0 in order to maintain an unobstructed channel for safe navigation. The completed work occurred on or about July 29, 2006.

Section 2: AUTHORITY

The Rivers and Harbors Act of 1912 first authorized the Missouri River Bank Stabilization and Navigation Project from Kansas City to the mouth. The Rivers and Harbors Act of 2 March 1945 modified the previous authorizations to provide for a navigable channel 9 feet deep and 300 feet wide between Sioux City and the mouth. The after-the-fact repair work would be authorized pursuant to Section 404 of the Clean Water Act (33 USC 1344), complying with regulations found at 33 CFR parts 335 through 338 and Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403).

Section 3: PROJECT LOCATION

PROJECT LOCATION (As shown on the attached drawings)**:** The project is located in the Missouri River at river miles 160.8 to 161.0 on a portion of dike 168.6 and on a new rootless dike at river miles 160.8 and 161.0 respectively. These structures form a small portion of the navigation channel located between Jefferson City and Columbia, on Eureka Bend, adjacent to Marion Bottoms Conservation Area, Cole County, Missouri.

Section 4: PROJECT PURPOSE and NEED FOR WORK

The Kansas City District completed an **emergency navigation channel repair** for the sill portion of Dike 168.6 and the construction of a new rootless dike at Mile 161.0. The purpose of this emergency repair was to maintain a safe and unobstructed navigation channel. Shoaling or deposition of river sands in this reach had developed due to drought conditions and the low flow conditions of the Missouri River that have persisted since June of this year. On 20 July 2006, the U. S. Coast Guard buoy tender Gasconade reported a restriction at Eureka Bend, Missouri River mile 160.8 to 161.0 where the navigation channel had reached a depth of 7.5 feet. This shoaling was subsequently confirmed by the Corps of Engineers.

The USFWS has initially agreed with the Corps' preferred alternative since the Corps' design for the new rootless structure would provide an opportunity for design and placement to create more sandbar and shallows at the edge of the navigation channel and add more sandbar habitat diversity within Eureka Bend, adjacent to Marion Bottoms Conservation Area, for the endangered pallid sturgeon and other aquatic species. There is presently good sandbar habitat in the river and the new rootless structure will enhance this sandbar habitat. USFWS fishery personnel have sampled pallid sturgeon from nearby dike structure 168.9. The USFWS has indicated that sturgeon appear to like this area and the plan for a rootless dike would create more shallow water sandbar habitat in this area for the endangered pallid sturgeon.

The attached drawing shows the plan utilized to correct the shoal at Mile 161. In general, the plan included repair of the sill portion of Dike 168.6, and construction of the new rootless dike.

Section 5: ALTERNATIVES

Three alternatives were considered. Two build alternatives and the "no action" alternative. The preferred build alternative would provide additional sandbar and shallow water habitat for the needs of the pallid sturgeon in varying degrees. The three alternatives considered were:

Alternative 1. Repair the sill portion of dike 168.6 and construction a new rootless dike at Missouri River miles 160.8 and 161.0 respectively within the waters of the Missouri River. This alternative would solve the navigation hazard as well as create additional shallow water habitat. Alternative 1 is therefore the Recommended Alternative.

Alternative 2. Alternative 2 is the repair of existing dikes 168.5 and 168.6, which are the existing navigation structures nearest the shoaling problem. The Corps determined that repair of the sill portions of dike 168.6 and dike 168.5 was deemed feasible and the shifting of water into the navigation channel at this location would result in some deepening of the navigation channel but would not adequately correct the major shoaling problem which is located primarily upstream of the existing structures.

Shallow water habitat was constructed at Dikes 168.5 and 168.6 in 2004 by excavating notches into the dikes near the high bank. Both dikes would be extended riverward 150-ft to compensate for flows diverted through the notches. The repair of the sill portion of dike 168.6 and dike 168.5 would enhance some of the shallow water sandbar habitat and habitat diversity required by and developed for the endangered pallid sturgeon and other Missouri River aquatic species within this area. Alternative 2 was rejected because the repair of existing structures alone would not adequately solve the shoaling problem.

Alternative 3. No Federal Action. The "No Federal Action" alternative would not meet the project purpose and need of allowing safe and unobstructed passage for commercial barge traffic on the Missouri river. The "No Federal Action" alternative would also allow for unsafe navigation conditions on the Missouri River to continue. Therefore Alternative 3 was rejected.

Section 6: RECOMMENDED PLAN

The preferred alternative is Alternative 1, construction of the new rootless dike at mile 161.0 in conjunction with the repair of the sill on dike 168.6. This alternative will solve the shoaling problem by shifting more water into the navigation channel increasing scouring within the navigation channel at the location where shoaling exists, and at the same time, allow additional shallow water habitat and sandbar habitat to replace the deeper water that presently exists below these dike structures. The new rootless dike structure was designed to add shallow water and sandbar diversity by setting the elevation of this new dike at zero feet CRP. With the increased elevation, the new dike will slow more water at this location causing additional river sands to settle out. The existing shallow water sandbar complex is then expected to expand within the non-navigation channel area. The completed repair occurred on or about July 29, 2006. The newly constructed dike was rootless, 235 feet long and consisted of approximately 4,500 tons of quarried limestone. The repaired sill portion of dike 168.6 was 110 feet long. Construction was done from a barge from the waters of the Missouri River. Newly quarried limestone rock was pushed off a barge by dozer and/or placed by dragline. No equipment worked within the substrate of the shallow waters of the Missouri River, within any wetland, or on dry land. The attached figure in Appendix I shows the layout and elevation of the new rootless dike, and stationing for the repair.

Section 7: EXISTING CONDITION

The existing condition adjacent to the Marion Bottoms Conservation Area's shallow water habitat at Eureka Bend is characterized by recently accreted sandbar and shallow water habitat formed within and behind an existing dike field. The structural modification of the dike field in this reach has allowed the river to create sandbar and shallow water habitat that appears to be conducive to the needs of the pallid sturgeon and other aquatic species.

At the present date, roughly 10% of the river flow is passing through the sill portion of Dike 168.6, and roughly 4% of the river flow is passing through the bank notch on this dike. However, the Corps has no plans to change the bank notch. There is also a 100' wide dike notch adjacent to the bank notch, but the dike notch does not presently have any flow through it. Only about 1% of the river flow is now passing through the side channel between dike 168.9 and the bank where the USFWS previously sampled pallid sturgeon.

Section 8: INITIAL AGENCY COORDINATION

Jane Ledwin (USFWS), Jane Epperson (MDC) and Mike Wells (MDNR) were contacted by Corps personnel via telephone and/or email regarding the navigation problem and design details to alleviate the problem. Based on initial agency coordination, CENWK has prepared a draft Environmental Assessment and draft Finding of No Significant Impact.

Section 9: ENVIRONMENTAL EFFECTS OF THE RECOMMENDED PLAN

The project impacts of the recommended plan (Alternative 1) would be the deepening of the navigation channel and the creation of additional sandbar and shallow water habitat for pallid sturgeon and other aquatic species at this site which would offset minor adverse effects.

In compliance with the Endangered Species Act, a preliminary determination has been made that under the notification procedures of the proposed authorization, and in consideration of the general construction methods that were used, the described work is not likely to adversely affect species designated as threatened, or endangered, or adversely affect critical habitat. The placement of clean new limestone may result in the local relocation and incidental limited mortality of benthic invertebrates, and somewhat increased turbidity within the water column. However, these short term/minor impacts are greatly outweighed by the economic benefit of safe navigation facilitating intrastate commerce.

A summary checklist of environmental effects of the recommended plan is attached as an enclosure in Appendix II.

Section 10: ENVIRONMENTAL EFFECTS OF THE NON-RECOMMENDED PLANS

Alternative 2.

This alternative is the repair of the sill portions of existing structures 168.6 and 168.5. The repair of existing dikes would have some effect on the shoaling but would not attack the major shoaling problem area. Repair of both the sill portion of dike 168.6 and dike 168.5 was deemed feasible, but the repair or modification of these existing dikes, especially dike 168.5, would not adequately solve the shoaling problem and restricted navigation channel. Alternative 2 would likely create some additional shallow water and sandbar habitat but not to the extent of Alternative 1.

Alternative 3 (the “no action” Alternative).
This alternative has not been recommended because it would not meet the project purpose of allowing for the safe passage of barge traffic nor does it create any sandbar/shallow water habitat. The “No Action” alternative would have no permanent or temporary construction related impacts.

Section 11: NATIONAL ENVIRONMENTAL POLICY ACT PUBLIC INTEREST REVIEW

a. General Coordination. As part of the NEPA and Section 404 of the Clean Water Act (404) review for the completed project, CENWK is circulating Public Notice No. 200602355, dated 16 August 2006, attached in Appendix II. The Public Notice describes the completed river structure construction work. The public will have 15 days to respond with comments to the Public Notice, Draft FONSI, Environmental Assessment, and NEPA/404 CWA review. The U.S. Coast Guard previously issued a draft restriction to commercial barge enterprises based on the shallowing of the navigation channel in the area of river mile 160.8 to 161.0. Coordination has been initiated with the U.S. Fish and Wildlife Service, the Missouri Department of Conservation, and the Missouri Department of Natural Resources.

b. Clean Water Act, as amended, (Federal Water Pollution Control Act) 33 U.S.C. 1251, et seq. The CWA is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States.

Section 404 – Regulates the Discharge of Dredged or Fill Material into Waters of the United States. Department of the Army authorization pursuant to Section 404 of the Clean Water Act is required for the modification of the existing dikes and revetments and the discharge of material (new quarried limestone) into the Missouri River. This discharge is subject to the Section 404(b)(1) Guidelines. The Corps has made a preliminary determination that the project would not be contrary to the public interest and is in compliance with the Section 404(b)(1) Guidelines. The Regulatory Office of the Corps’ Operations Division, (OD-R) concurs that the project is in compliance with Section 404 of the Clean Water Act and that the decision and procedures utilized are consistent with the requirements of the Regulatory Program.

Section 401 - Water Quality Certification. State water quality certification is requested for Regulatory Authorization No. 200602355 from the Missouri Department of Natural Resources (MDNR), as described in Public Notice No 200602355 dated August 16, 2006.

Section 402 - National Pollution Discharge Elimination System (NPDES) Storm Water Discharge Permit. Not Applicable. The construction area is less than one acre.

The Rivers & Harbors Appropriation Act of 1899.
Section 10 – Regulates activities and construction affecting the Navigable waters of the United States including wetlands. Department of the Army authorization is required to modify any navigable channel of the United States.

c. Endangered Species Act, as amended, 16 U.S.C. 1531 et seq.

In compliance with the Endangered Species Act, a preliminary determination has been made that the described work may affect, but is not likely to adversely affect, species designated as threatened or endangered or adversely modify or destroy critical habitat. The U.S. Fish and Wildlife Service was initially coordinated with by phone and e-mail and commented that they have no objections to the project provided a rootless dike is constructed. In order to complete our evaluation of this activity, comments are being solicited from the U.S. Fish and Wildlife Service and other interested agencies and individuals.

d. Archeological and Historical Data Preservation Act, as amended, 16 U.S.C. 469 et seq. and National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470a, et seq.
The project has been reviewed in compliance with the National Historic Preservation Act of 1966 (Public Law 89-665) including a check of the National Register of Historic Places (NRHP) and supplements thereto. No properties listed, proposed for listing, or eligible for listing in the National Register were identified in the project area. Furthermore, our evaluation of potential impacts to historic properties indicates that the project would not impact any properties listed, proposed for listing, eligible for listing, or potentially eligible for listing in the (NRHP). Pursuant to Section 106 of the National Historic Preservation Act, the Kansas City District has reviewed the historic channel and shipwreck maps and determined that no Historic Properties were affected by the project. One shipwreck, the Orion (1864), is recorded to the northwest of the project, but well outside the current project area. Because the project area is within the present day Missouri River channel and no shipwrecks or NRHP sites are recorded within the proposed area, it is unlikely that the project would impact archeological sites or historic structures. In light that all construction work associated with the emergency repairs occurred on an existing dike and/or within the Missouri river itself, the Corps is recommending no further investigations be conducted. The Kansas City District will coordinate the project with the State Historic Preservation Officer, and will take into consideration any information from affiliated Native American tribes, or the public, on any sites or traditional cultural properties that may be of concern.

e. Clean Air Act, as amended, 42 U.S.C. 1857h-7, et seq. Air quality is not expected to be affected to any measurable degree by construction activities associated with the project.

f. Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661, et seq. The project was initially coordinated with the resource agencies as described above in Section a. The USFWS has initially stated via telephone and email that they have no objections to the project provided the rootless dike is constructed.

g. National Environmental Policy Act (NEPA), as amended, 42 U.S.C. 4321, et seq. The Corps of Engineers implemented the emergency provisions in NEPA and Section 404 of the Clean Water Act to proceed with completing the project. After informally consulting with the U.S. Fish and Wildlife Service, a determination was made that the project would not result in significant degradation of the human environment; and therefore, the project would support a Finding of No Significant Impact (FONSI). The Corps will utilize comments received in response to the Public Notice to complete its evaluation of the project for compliance with the requirements of NEPA, and other Federal, state, and local regulations. A draft Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) have been prepared for the action. The project is in compliance with NEPA.

Section 12: MITIGATION MEASURES

The recommended plan will result in the creation of additional sandbar and shallow water habitat for pallid sturgeon and other river species on Eureka Bend adjacent to the Marion Bottoms Conservation Area. The overall environmental benefits associated with this project outweigh the minor temporary construction-related impacts of the project. Therefore, no additional mitigation measures are warranted or proposed.

Section 13: COMPLIANCE WITH ENVIRONMENTAL QUALITY STATUTES

Compliance with Designated Environmental Quality Statutes that may or may not have been specifically addressed earlier in this report are covered in the following Table:

Table 3
Compliance of Preferred Alternative with Environmental Protection Statutes and Other Environmental Requirements

Federal Policies	Compliance
Archeological Resources Protection Act, 16 U.S.C. 470, et. seq.	Full Compliance
Clean Air Act, as amended, 42 U.S.C. 7401-7671g, et. seq.	Full Compliance
Clean Water Act (Federal Water Pollution Control Act), 33 U.S.C. 1251, et. seq.	Full Compliance
Coastal Zone Management Act, 16 U.S.C. 1451, et. seq.	Not Applicable
Endangered Species Act, 16 U.S.C. 1531, et. seq.	Full Compliance
Estuary Protection Act, 16 U.S.C. 1221, et. seq.	Not Applicable
Federal Water Project Recreation Act, 16 U.S.C. 4601-12, et. seq.	Full Compliance

Fish and Wildlife Coordination Act, 16 U.S.C. 661, et. seq.	Full Compliance
Land and Water Conservation Fund Act, 16 U.S.C. 4601-4, et. seq.	Not Applicable
Marine Protection Research and Sanctuary Act, 33 U.S.C. 1401, et. seq.	Not Applicable
National Environmental Policy Act, 42 U.S.C. 4321, et. seq.	Full Compliance
National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470a, et. seq.	Full compliance
Rivers and Harbors Act, 33 U.S.C. 403, et. seq.	Full Compliance
Watershed Protection and Flood Prevention Act, 16 U.S.C. 1001, et. seq.	Not Applicable
Wild and Scenic River Act, 16 U.S.C. 1271, et. seq.	Not Applicable
Farmland Protection Policy Act, 7 U.S.C. 4201, et. seq.	Not Applicable
Protection & Enhancement of the Cultural Environment (Executive Order 11593)	Full Compliance
Floodplain Management (Executive Order 11988)	Full Compliance
Protection of Wetlands (Executive Order 11990)	Full Compliance
Environmental Justice (Executive Order 12898)	Not Applicable

NOTES:

a. Full Compliance. Having met all requirements of the statute for the current stage of planning (either pre-authorization or post-authorization)
b. Partial compliance. Not having met some of the requirements that normally are met in the current stage of planning.
c. Non-compliance. Violation of a requirement of the statute.
d. Not applicable. No requirements for the statute required; compliance for the current stage of planning.

Section 14: CONCLUSION & RECOMMENDATION

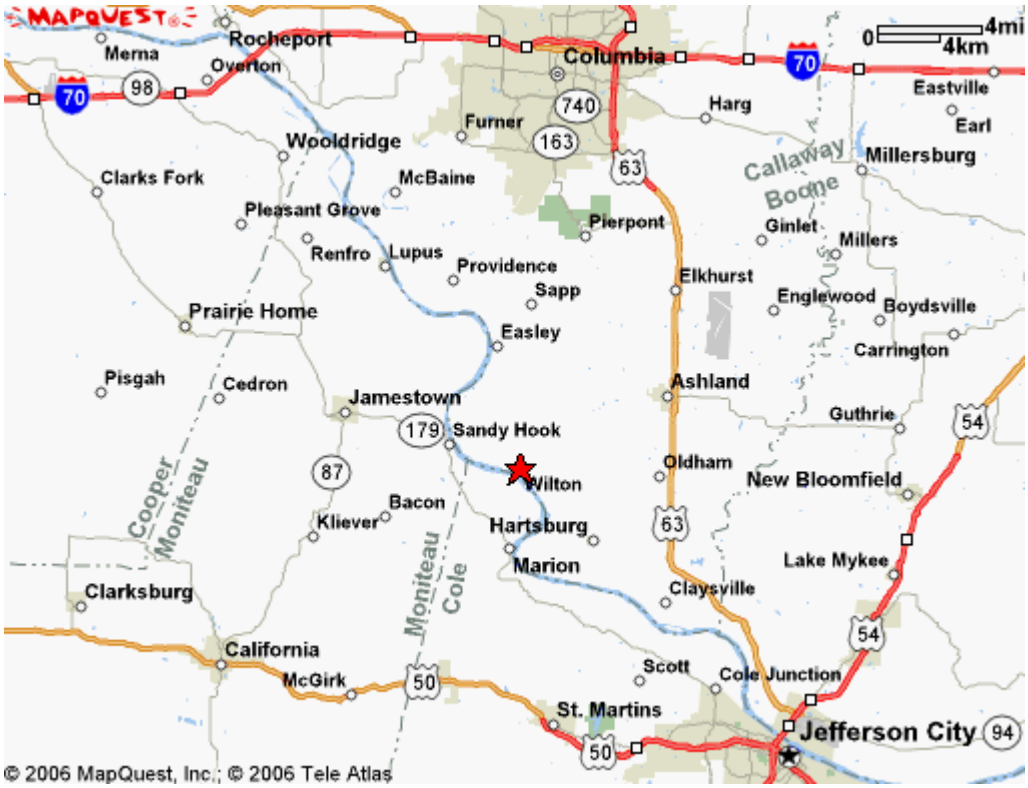
Based on the coordination with the resource agencies and input gained through a public interest review, as documented in this Environmental Assessment, the Kansas City District, Corps of Engineers has made a preliminary determination that this project would have no significant impacts on the human environment including natural and cultural resources and Federally listed threatened and endangered species; therefore, a Finding of No Significant Impact (FONSI) has been prepared. In addition, after reviewing all the information available, the Corps has made a determination that the project is the least environmentally damaging practicable alternative; that all appropriate and practicable measures have been included to avoid/minimize potential adverse impacts of the discharge on the aquatic environment; that the project is not contrary to the public interest; that the project would not result in any adverse cumulative impacts to the watershed and that all comments and concerns identified during the public interest review have been adequately addressed. If there are no significant adverse comments resulting from the public interest review, the NEPA/404 CWA decision documents will be forwarded to the District Engineer with a recommendation for approval and signing of the FONSI.

APPENDIX I

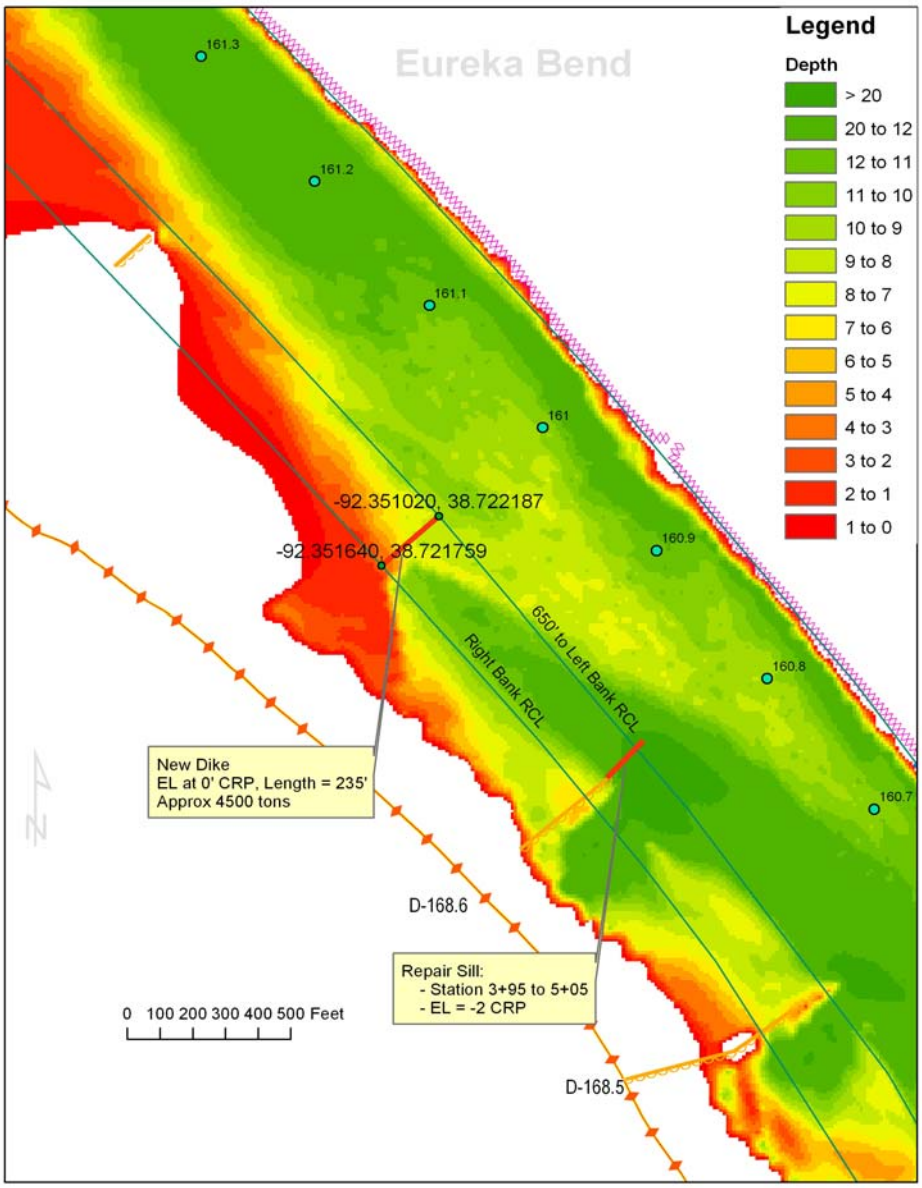
PROJECT LOCATION MAP
And
SITE DRAWING

PROJECT LOCATION MAP

The Emergency Navigation Structure Repair Location is at the Star, Missouri River Miles 160.8 to 161.0 on Eureka Bend, adjacent to the Marion Bend Conservation Area, Cole County, Missouri



EMERGENCY NAVIGATION STRUCTURE SITE DRAWING



Shoaling, Water depths, Sill Repair and New Dike Construction at Eureka Bend, River Miles 160.8 to 161.0 .

(Note that Repair of Existing Dikes 168.5 and 168.6 would not sufficiently affect the major shoaling area. However, construction of the new rootless dike at mile 161.0 in conjunction with the repair of the sill on dike 168.6 would in shift additional scouring flows into the navigation channel and at the same time allow shallow water habitat and sandbar to replace the deeper water that presently exists below these structures.)

APPENDIX II

NEPA/SECTION 404 CLEAN WATER ACT
COMPLIANCE REVIEW DOCUMENTS

Summary of Environmental Impacts
Public Notice/Draft 404(b)(1) Evaluation

Summary of Environmental Effects

	IMPACTS		
ENVIRONMENTAL EFFECTS	**None**	**Beneficial**	**Adverse**
Air Quality			Short Term & Not Significant Construction Related
Noise Levels			Short Term & Not Significant Construction Related
Water Quality			Short Term & Not Significant Construction Related
Water Supply	None		
Soil Erosion	None		
Fish & Wildlife		Some Shallow Water Dev.	
Threatened & Endangered Species		Short Term - Minor	
Rare Species		Short Term - Minor	
Vegetation	None		
Wetlands	None		
Geological Resources	None		
Energy Resources			Short Term & Not Significant Construction Related
Cumulative Effects		Long Term Minor	
SOCIAL EFFECTS	**None**	**Beneficial**	**Adverse**
Archaeological	None		
Historical	None		
Flood control	None		
Navigation		Long Term	
Aesthetics	None		
Transportation		Long Term	
Health and Safety		Long Term	
Community Services		Long Term	
Population density	None		
Recreation	None		
International Relations	None		
Cumulative Effects		Short Term & Minor	
Economic Effects	**None**	**Beneficial**	**Adverse**
Land Use	None		
Employment		Short Term & Minor	
Tax Base		Not Significant	
Public Service		Long Term & Minor	
Agricultural Activity	None		
Growth Patterns	None		
Cumulative Effects		Long Term and Minor	

Alternatives: 1) Repair dike 160.8 and construct rootless dike (recommended option), 2) Repair dikes 160.8 and 161.0, and 3) No Federal Action.

Cumulative Effects: No Significant Cumulative Effects.

Input From Other Agencies: No significant or unresolved issues to date.

PUBLIC NOTICE

US Army Corps
of Engineers
Kansas City District

Permit No. 200602355
Issue Date: August 16, 2006
Expiration Date: August 31, 2006

15-Day Notice

JOINT PUBLIC NOTICE: This public notice is issued jointly with the Missouri Department of Natural Resources, Water Pollution Control Program. The Department of Natural Resources will use the comments to this notice in deciding whether to grant Section 401 water quality certification. Commenter's are requested to furnish a copy of their comments to the Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102.

This Public Notice is available for public/agency review and comment on the Kansas City District Regulatory Branch website at: http://www.nwk.usace.army.mil/regulatory/public_notices.htm. The FONSI, EA and NEPA/404 CWA Review documents can be found on the Kansas City District Corps of Engineers website at http://www.nwk.usace.army.mil/RiverCharts/RiverCharts.htm

APPLICANT: Kansas City District, Corps of Engineers
700 Federal Building
601 E. 12th Street
Kansas City, Missouri 64106-2896

PROJECT LOCATION (As shown on the attached drawings)**:** The project is located in the Missouri River at river miles 160.8 to 161.0 on a portion of dike 168.6 and on a new rootless dike at river miles 160.8 and 161.0 respectively. These structures form a small portion of the navigation channel located between Jefferson City and Columbia, on Eureka Bend, adjacent to Marion Bottoms Conservation Area, Cole County, Missouri.

AUTHORITY: The Rivers and Harbors Act of 1912 first authorized the Missouri River Bank Stabilization and Navigation Project from Kansas City to the mouth. The Rivers and Harbors Act of March 2, 1945 modified the previous authorizations to provide for a navigable channel 9 feet deep and 300 feet wide between Sioux City and the mouth. The after-the-fact repair work would be authorized pursuant to Section 404 of the Clean

Water Act (33 USC 1344), complying with regulations found at 33 CFR parts 335 through 338 and Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403).

ACTIVITY/ AFTER-THE-FACT WORK: The U.S. Army Corps of Engineers (USACE) Kansas City District, completed **emergency** structure maintenance to restore commercial barge navigation to the Missouri River at miles 160.8 to 161.0 in order to maintain an unobstructed channel for safe navigation. The completed work occurred on or about July 29, 2006. The Corps repaired the sill portion of dike 168.6 and constructed a new rootless stone dike at Missouri River miles 160.8 and 161.0 respectively within the waters of the Missouri River. The new dike was rootless, 235 feet long and consisted of approximately 4,500 tons of quarried limestone. The repaired sill portion of dike 168.6 was 110 feet long. Construction was done from a barge from the waters of the Missouri River. Newly quarried limestone rock was pushed off a barge by dozer and/or placed by dragline. No equipment worked within the substrate of the shallow waters of the Missouri River, within any wetland, or on dry land. The Corps determined that repair of existing dikes 168.5 and 168.6 would not sufficiently affect the major shoaling area. However, construction of the new rootless dike at mile 161.0 in conjunction with the repair of the sill on dike 168.6 would shift more water into the navigation channel allowing shallow water habitat and sandbar to replace the deeper water that presently exists below these structures.

WETLANDS: No Wetlands are present within the construction area.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) OF 1968, as amended: The Corps of Engineers implemented the emergency provisions in NEPA and Section 404 of the Clean Water Act to proceed with completing the project. After informally consulting with the U.S. Fish and Wildlife Service, a determination was made that the project would not result in significant degradation of the human environment; and therefore, the project would support a Finding of No Significant Impact (FONSI). The Corps will utilize comments received in response to this Public Notice to complete its evaluation of the project for compliance with the requirements of NEPA, and other Federal, state, and local regulations. The Corps has made a preliminary determination that the project would not be contrary to the public interest and is in compliance with the Section 404(b)(1) Guidelines.

MAP AND DRAWING: The attached map and drawing provide location and site details of the completed project.

PROPERTY ADJACENT TO PROJECT AREA: The Missouri Department of Conservation (Marion Bottoms Conservation Area) is the adjacent property owner and would not be affected by the completed work.

CULTURAL RESOURCES: The project has been reviewed in compliance with the National Historic Preservation Act of 1966 (Public Law 89-665) including a check of the National Register of Historic Places (NRHP) and supplements thereto. No properties listed, proposed for listing, or eligible for listing in the National Register were identified

in the project area. Furthermore, our evaluation of potential impacts to historic properties indicates that the project would not impact any properties listed, proposed for listing, eligible for listing, or potentially eligible for listing in the (NRHP). Pursuant to Section 106 of the National Historic Preservation Act, the Kansas City District has reviewed the historic channel and shipwreck maps and determined that no Historic Properties were affected by the project. One shipwreck, the Orion (1864), is recorded to the northwest of the project, but well outside the current project area. Because the project area is within the present day Missouri River channel and no shipwrecks or NRHP sites are recorded within the proposed area, it is unlikely that the project would impact archeological sites or historic structures. In light that all construction work associated with the emergency repairs occurred on an existing dike and/or within the Missouri river itself, the Corps is recommending no further investigations be conducted. The Kansas City District will coordinate the project with the State Historic Preservation Officer, and will take into consideration any information from affiliated Native American tribes, or the public, on any sites or traditional cultural properties that may be of concern.

ENDANGERED SPECIES: In compliance with the Endangered Species Act, a preliminary determination has been made that the described work may affect, but is not likely to adversely affect, species designated as threatened or endangered or adversely modify or destroy critical habitat. The U.S. Fish and Wildlife Service was initially coordinated with by phone and e-mail and commented that they have no objections to the project provided a rootless dike is constructed. In order to complete our evaluation of this activity, comments are being solicited from the U.S. Fish and Wildlife Service and other interested agencies and individuals.

FLOODPLAINS: This activity is being reviewed in accordance with Executive Order 11988, Floodplain Management, which discourages direct or indirect support of floodplain development whenever there is a practicable alternative. By this public notice, comments are requested from individuals and agencies that believe the described work will adversely impact the floodplain.

WATER QUALITY CERTIFICATION: Section 401 of the Clean Water Act (33 USC 1341) requires that all discharges of dredged or fill material must be certified by the appropriate state agency as complying with applicable effluent limitations and water quality standards. This public notice serves as an application to the state in which the discharge site is located for certification of the discharge. The discharge must be certified before a Department of the Army authorization can be issued. Certification, if issued, expresses the state's opinion that the discharge will not violate applicable water quality standards.

PUBLIC INTEREST REVIEW: The decision to issue authorization will be based on an evaluation of the probable impact including the cumulative impacts of the after-the-fact activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered

including the cumulative effects thereof; among those are conservation, economics, esthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and, in general, the needs and welfare of the people. The evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency under authority of Section 404(b) of the Clean Water Act (33 USC 1344). The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this after-the-fact activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny an authorization for this action. To make this decision, comments are used to address impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in preparation of an Environmental Assessment pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the completed activity.

COMMENTS: This notice is provided to outline details of the above-described activity so this District may consider all pertinent comments prior to determining if issuance of an authorization would be in the public interest. Any interested party is invited to submit to the Corps of Engineers, Kansas City District, written facts or objections relative to the activity on or before the public notice expiration date. Comments both favorable and unfavorable will be accepted and made a part of the record and will receive full consideration in determining whether it would be in the public interest to issue the Department of the Army authorization. Copies of all comments, including names and addresses of commenter's, may be provided to the applicant. Comments should be mailed to the Kansas City District Corps of Engineers and a copy furnished to the Missouri Department of Natural Resources as requested on page 1 of this public notice.

PUBLIC HEARING: Any person may request, in writing, prior to the expiration date of this public notice, that a public hearing be held to consider this application. Such requests shall state, with particularity, the reasons for holding a public hearing.

ADDITIONAL INFORMATION: Additional information may be obtained by contacting Mr. Galen Rasmussen, U.S. Army Corps of Engineers, Environmental Resources Section, 601 East 12th Street, Room 843, Kansas City, Missouri 64106, at telephone 816-389-3135, (FAX 816-389-2025) or via e-mail at galen.g.rasmussen@usace.army.mil. All comments to this public notice should be directed to the above address.

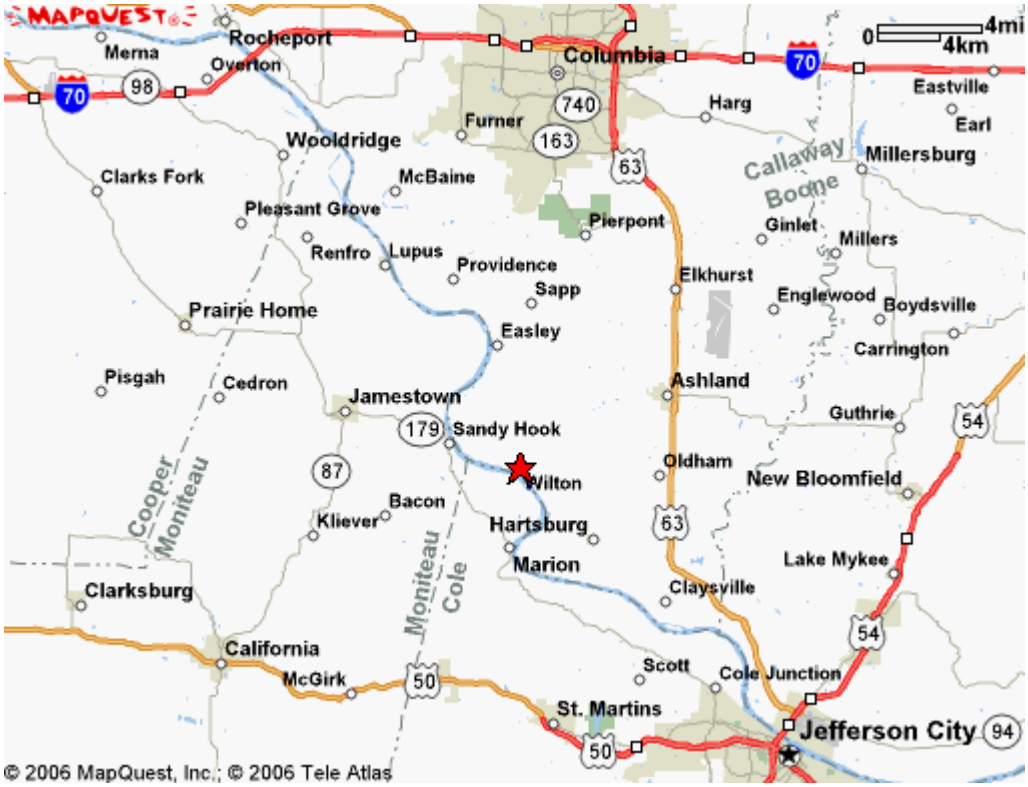
NOTICE TO EDITORS: This notice is provided as background information for your use in formatting news stories. This notice is not a contract for classified display advertising.

PRELIMINARY SECTION 404(b)(1) EVALUATION REPORT
PUBLIC NOTICE NO. 200602355

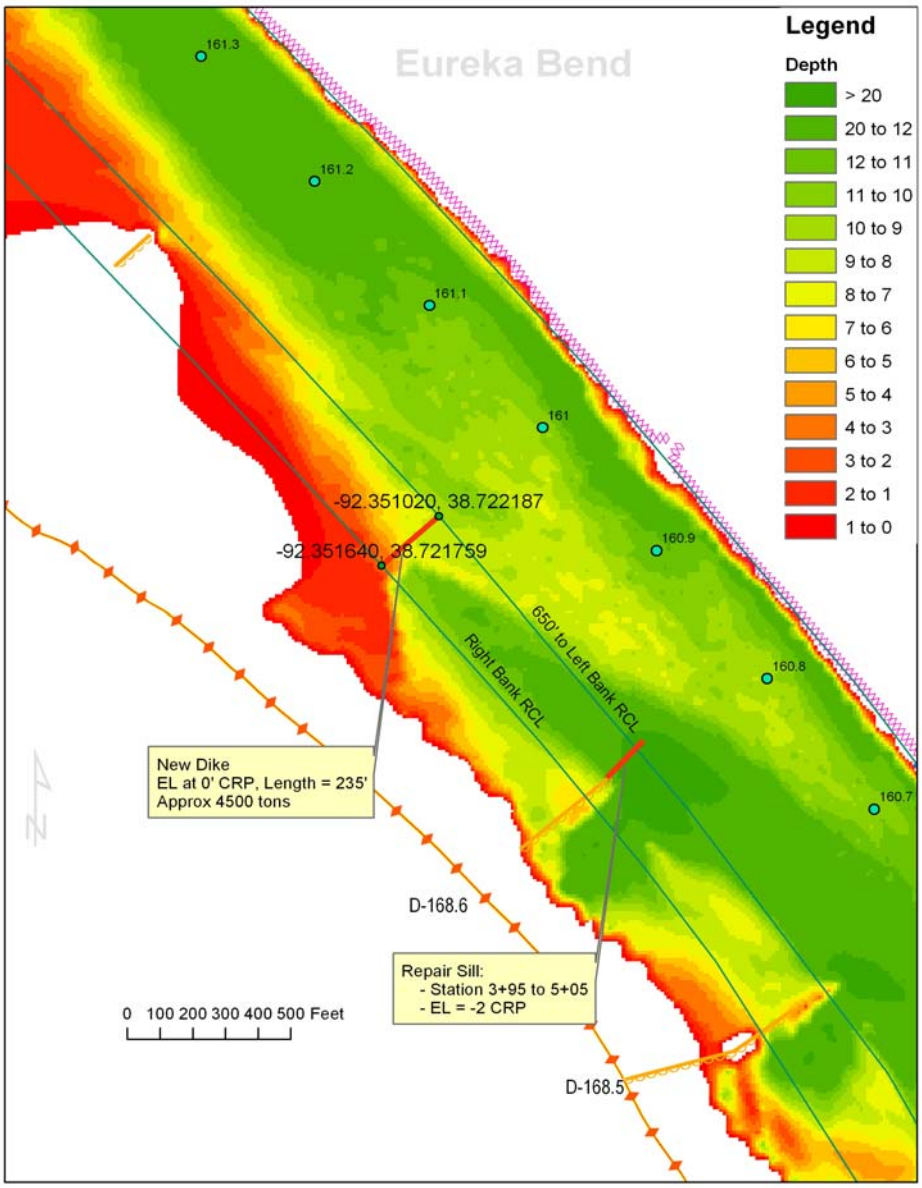
	YES	POTENTIAL EFFECTS	NO
I. Physical Effects			
A. Potential destruction of wetlands……			X
B. Impact on water column……		X	
C. Covering of benthic communities……		X	
II. Chemical-Biological Interactive Effects			
A. Adverse effect of chemical constituents on water column……			X
B. Adverse effect of chemical constituents on benthos …….			X
III. Applicable Water Quality Standards			
A. Will activity be in conformance with applicable standards?…….	X		
IV. Selection of Disposal Sites			
A. Impacts of fill material on chemical, physical, and biological integrity of aquatic ecosystem……	X	X	
B. Have the needs for the proposed activity been considered?……..	X		
C. Have alternatives been considered?……			
D. Impacts on water uses at the proposed disposal site …….		X	
E. Have mitigation measures to minimize harmful effects been considered?……	X		
V. Contamination of Fill Material			
A. Contamination of fill material if from a land source……..			X
VI. Mixing Zone			
A. Have mixing zone determinations been established for each disposal site?…….			X
VII. Impacts to Navigation			
A. Impairment to maintenance of navigation.			X
B. Economic impact on navigation and anchorage……			X
VIII. Public Participation and Coordination	X		
A. Will a public interest review be conducted?…….			

PROJECT LOCATION MAP

The Emergency Navigation Structure Repair Location is at the star, Missouri River Miles 160.8 to 161.0 on Eureka Bend, Adjacent to Marion Bend Conservation Area, Cole County, Missouri



EMERGENCY NAVIGATION STRUCTURE SITE DRAWING



Shoaling, Water depths and After-the-fact Sill Repair and New Dike Construction at Eureka Bend, Adjacent to Marion Bottoms Conservation Area, River Miles 160.8 to 161.0 .

(Note that Repair of Existing Dikes 168.5 and 168.6 would not sufficiently affect the major shoaling area. However, construction of the new rootless dike at mile 161.0 in conjunction with the repair of the sill on dike 168.6 would shift additional scouring flows into the navigation channel allowing shallow water habitat and sandbar to replace the deeper water that presently exists below these structures.)